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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,965	10/20/1999	ELLEN M. HEATH	1074.010US1	3488
27073	7590	03/10/2005	EXAMINER	
LEFFERT JAY & POLGLAZE, P.A. P.O. BOX 581009 MINNEAPOLIS, MN 55458-1009			GORDON, BRIAN R	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 03/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/420,965	Applicant(s) HEATH ET AL.	
	Examiner Brian R. Gordon	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12-23-2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12, 18-22 and 40-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12, 18-22, 40-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 22 January 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 23, 2004 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-9, 12, 18-22, and 40-47 have been considered but are moot in view of the new ground(s) of rejection.

Claim Interpretations

3. Claims 1, 7-9, are 44-45, appear to be structure claims however each claim includes a "wherein" clause that is directed to the use of the cap in vessel, more specifically how the cap is threaded on and off of the vessel. Claims 7-9 are directed to steps of how the cap is secured the first time and removed. These limitations are considered as intended use of the cap and vessel.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

As such, the examiner has determined that any prior art meeting the limitations of a device comprising the structure of the cap and vessel as recited in the instant claims

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inherently meets the limitation of the intended use claims for the devices of the prior art may be used as so desired.

A number of claims recite the action or ability of the cap being "secured" to the vessel. As in the apparatus the claims, the recitation is considered intended use. Furthermore the examiner interprets the term as meaning attached, joined, or connected. The term secured implies that something is protected, locked, prevented access, etc. In the instant case, the cap is attached, joined, connected and vice versa by the action of rotation as recited in the claims. The action does not lock, protect, or prevent the cap from being further rotated as the term "secured" implies. The claim does not exclude the action of rotating the cap in a loosening direction by a degree of rotation where the cap remains attached (secured) to the bottle.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4-5, and 40-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Fabrice, US 2,113,176.

Fabrice discloses a sealed receptacle comprising a bottle and cap. As seen in figure 3, the bottle neck 1 is equipped with thread formations 2 that terminate above the upper surface of the formation 3 (non-circular bottle flange; quadrangle-shaped). The cap 5 comprises, threads 13 and a base portion (non-circular flange) that is of a

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corresponding shape and general construction of the formation 3 of the bottle (see figures 2-3, column 2, lines 42-52, column 3, lines 40-49, column 4, lines 10-20).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Fabrice, US 2,113,176.

Fabrice does not specify the process or action of securing (attaching) screwing the cap onto the bottle.

Fabrice discloses a process of removing or unscrewing the cap off of the bottle. As seen in the figures the threads of the bottle spiral around the bottle multiple times. As such it would have been obvious to one of ordinary skill in the art at the time of the invention to recognize it would require multiple full rotations for the cap to be removed or full detached from the bottle. It would have been further obvious for one to recognize that the may cap may remain attached or secured to the bottle if one decided to rotate the cap 360 degrees or less and cease in the process of removing the cap. It would have been obvious to one of ordinary skill in the art to recognize that once the cap is in condition to be removed in may also be screwed back on in the reverse direction.

10. Claims 2-3, 6, and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabrice as applied to claims 1, 4-5, and 40-41 above, and further in view of Long Jr., US 6,059,134.

Fabrice does not disclose that the cap and container have disjointed threads.

Long Jr. discloses a snap-on, screw-off closure and container that have multiple discontinuous mating threads. As it appears in the figures each thread extends about 180 degrees around the vessel neck and each thread starts in a location about 90 degrees away from an adjacent thread. The device is manufactured from plastic and more preferably a high density plastic suitable for blow molding of the thread finish. The

molding process makes it obvious that the design and location of the threads may be altered as so desired.

Helically extending between first end 14 and the second end 16 of the annular wall 12 are an appropriate number of threads to permit snap-on or screw-on application, preferably eight or nine threads 24 terminating at points 26 and 27 proximate to the first end 14 and second end 16 of annular wall 12, respectively. Preferably, threads 24 are helically spaced in a continuous relationship as shown in FIG. 1 but threads 24 can alternately be discontinuous and can take on any cross-sectional profile suitable for mating with threads 43 on the closure 30 during snap and screw-on application of the closure 30 to the neck finish 10 (column 3, lines 57-67).

It would have been obvious that if the threads of the cap and vessel are manufactured to a certain same length where removal of the cap may be accomplished when the cap is turned in a direction that certain distance and attaching the cap would occur when the cap is turned in the opposite direction that same certain length.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Fabrice to include the principles of Long Jr. et al in order develop a closure which would indicate tampering of the seal.

The examiner asserts that it would have been obvious to one of the ordinary skill in the art to modify the device by employing the disjoined threaded formation of Long Jr., for it has been disclosed that both single and multiple threads are conventional and well-known in the art for providing a secure attachment of a cap to a vessel. As to the number of threads and the spacing on the cap, it has been disclosed (specification page

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12 and cited references, Folchini, Collins, Edwards, and Edwards et al.) that "four-start" threads are also conventional and well known in the art. It is obvious that the spacing of the threads depends on the total number of the threads; therefore, if four threads are to be equally spaced around a 360 degrees perimeter, then each thread would obviously be spaced 90 degrees from an adjacent thread. Although Long Jr. discloses the use of 8 or 9 equally spaced threads, this does not preclude the use of a conventional "four-start" thread configuration to provide suitable closure means for a cap and vessel assembly. The examiner hereby asserts that the employment of a well-known, "conventional" thread format does not distinguish the claimed invention over the prior art.

11. Claims 18-19 and 42-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konefal et al., US 6,039,195 in view of Fabrice.

Konefal et al. disclose a child resistant package which includes a container (vessel) having an open end and multiple threads on the external surface of the container adjacent the upper end. A closure (cap) having a base wall and a peripheral skirt has an inner surface formed with single or multiple threads corresponding in number to the multiple threads on the container for engaging the threads on the container. A deflectable release element is formed integrally on the container. The release element includes an integral axially deflectable lug extending upwardly toward the open end of the container. The closure has at least one locking lug on the skirt of the closure, the number of locking lugs preferably corresponding to the number of threads on the container and closure (abstract).

The closure 26 includes a second annular skirt 40 extending axially downwardly from the lower end of the skirt 36 and connected thereto by a second annular radial flange 42 such that the skirt 40 is spaced from the thread 38. A single locking lug or stop 44 extends 1 5 radially inwardly from the inner surface of skirt 40.

In FIGS. 7 and 10, a deflectable tab or release element 50 is mounted on the vial 20 at an interruption or space in the flange 24. The release element 50 is connected to the vial 20 by circumferentially spaced horizontal flexible and resilient arms 52 which are attached to the vial 20 at one end and to the release element 50 at the other end such that the release element is spaced from the vial. The deflectable release element 50 has a radial width and axial thickness which is sufficient to make the element convenient for an adult to remove the closure from the container by depressing the element 50 yet difficult for a child to open the package. A single integral cantilever lug 54 (vessel flange) extends axially upwardly from the release element 50. The cantilever lug 54 is axially deflectable upon the application of the closure and is mounted in a cantilever manner on the release element 50 and includes an axial stop surface 56 which is inclined at a small acute angle to an axial radial plane complementary to the angle of surface 46 on locking lug 44 (cap flange) (column 4, lines 34-62).

Konefal et al. teach that the vessel is sealed or secured when complimentary lugs (flanges) 44 and 54 (which in the figures appear to be substantially square or rectangular) are aligned.

The plastic container 20 is preferably made of homopolymer polypropylene and the closure 26 is preferably made of high density polyethylene. Other container

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materials which can be used, depending on the nature of the contents, such as copolymer polypropylene, other polyethylenes, and PET. Other closure materials may also be used depending on the nature of the contents of the containers.

Konefal does not disclose the complimentary non-circular flanges as claimed by applicant.

Fabrice discloses a sealed receptacle comprising a bottle and cap. As seen in figure 3, the bottle neck 1 is equipped with thread formations 2 that terminate above the upper surface of the formation 3 (non-circular bottle flange; quadrangle-shaped). The cap 5 comprises, threads 13 and a base portion (non-circular flange) that is of a corresponding shape and general construction of the formation 3 of the bottle (see figures 2-3, column 2, lines 42-52, column 3, lines 40-49, column 4, lines 10-20).

The corresponding flanges fit together to prevent further rotation of the cap.

I would have been obvious to one of ordinary skill in the art to modify the flanges of the vessel and cap of Konefal by molding them into complimentary shapes as taught by Fabrice in order to prevent a child from removing the cap from the vessel.

As such the cap may be secured by threading the cap onto the vessel until the two corresponding flanges as taught by Fabrice are aligned and removed in by actuation in the reverse direction.

12. Claims 20-22 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konefal in view of Fabrice as applied to claims 18-19 and 42-47 above, and further in view of Long Jr., US 6,059,134.

Konefal in view Fabrice do not disclose that the cap and container have disjointed threads.

Long Jr. discloses a snap-on, screw-off closure and container that have multiple discontinuous mating threads. As it appears in the figures each thread extends about 180 degrees around the vessel neck and each thread starts in a location about 90 degrees away from an adjacent thread. The device is manufactured from plastic and more preferably a high density plastic suitable for blow molding of the thread finish. The molding process makes it obvious that the design and location of the threads may be altered as so desired.

Helically extending between first end 14 and the second end 16 of the annular wall 12 are an appropriate number of threads to permit snap-on or screw-on application, preferably eight or nine threads 24 terminating at points 26 and 27 proximate to the first end 14 and second end 16 of annular wall 12, respectively. Preferably, threads 24 are helically spaced in a continuous relationship as shown in FIG. 1 but threads 24 can alternately be discontinuous and can take on any cross-sectional profile suitable for mating with threads 43 on the closure 30 during snap and screw-on application of the closure 30 to the neck finish 10 (column 3, lines 57-67).

It would have been obvious that if the threads of the cap and vessel are manufactured to a certain same length where removal of the cap may be accomplished when the cap is turned in a direction that certain distance and attaching the cap would occur when the cap is turned in the opposite direction that same certain length.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the modified device of Fabrice to include the principles of Long Jr. et al in order develop a closure which would indicate tampering of the seal.

The examiner asserts that it would have been obvious to one of the ordinary skill in the art to modify the device by employing the disjointed threaded formation of Long Jr., for it has been disclosed that both single and multiple threads are conventional and well-known in the art for providing a secure attachment of a cap to a vessel. As to the number of threads and the spacing on the cap, it has been disclosed (specification page 12 and cited references, Folchini, Collins, Edwards, and Edwards et al.) that “four-start” threads are also conventional and well known in the art. It is obvious that the spacing of the threads depends on the total number of the threads; therefore, if four threads are to be equally spaced around a 360 degrees perimeter, then each thread would obviously be spaced 90 degrees from an adjacent thread. Although Long Jr. discloses the use of 8 or 9 equally spaced threads, this does not preclude the use of a conventional “four-start” thread configuration to provide suitable closure means for a cap and vessel assembly. The examiner hereby asserts that the employment of a well-known, “conventional” thread format does not distinguish the claimed invention over the prior art.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fabrice ,359 discloses a vessel and cap. The various websites, www.sks-bottle.com, www.fishersci.com, www.labdepotinc.com, www.bottles.com,

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Apogent, Product Briefing and www.sorbtech.com disclose various cap and vessel combinations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'BRG', followed by a long horizontal flourish line.

brg